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10/756,864	01/14/2004	James Peter Branigan	AUS920030840US1	3392

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EXAMINER	
CAO, DIEM K	

ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/756,864	BRANIGAN ET AL.	
	Examiner	Art Unit	
	Diem K. Cao	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are pending. Applicant has been amended claims 1, 6, 10, 16, 20, 21, 23, 26 and 30.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/7/2008 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 8-9, 11-14, 18-19, 21-24 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (U.S. 5,881,315) in view of The Open Group (System Management: Event Management Service).

As to claim 1, Cohen teaches in a modular computer system environment (distributed computing environment; col. 4, line 9), a method comprising:

- publication data (events are of several types, error message, warnings, etc; col. 5, lines 18-20), an identifier (ID) indicating a type of data (a unique universal identifier UUID; col. 6, lines 48-49), wherein the publication data is provided in a pre-established format consumable and recognizable by any one of a plurality of the subscribe components (inherent from the event data is sent to interested consumers without modify or convert the data; col. 7, lines 21-24) of the computer system which has a plurality of publish components along with the plurality of subscribe components coupled to nodes a central information bus configuration (CIBC), which enables system-wide intercommunication among the plurality of publish components and subscribe components (two or more nodes A, B and C connected through a communication link or network; col. 4, lines 10-12 Each of the processing systems may operate as a client or server, depending on whether it is requesting or supplying services; col. 4, lines 18-20);

- receiving subscriptions from one or more of the subscribe components for the publication data (In order to start receiving events ... EMS 22; col. 6, lines 11-12 and event consumers ... create a particular "event filter group" for that consumer; col. 6, lines 36-39); and

- when the publication data is published on the central information bus (Once the event arrives at EMS via a remote procedure call; col. 7, lines 12-15), directing an issuance of the publication data to the one or more subscribe components via directed broadcast (a queuing ... to the interested consumers; col. 7, lines 21-24).

Cohen does not explicitly teach modeling the publication data within a publication object that includes the data and identifier. However, The Open Group teaches modeling the publication data within a publication object that includes the data and identifier (event consist of two objects, event header, the event identifier, event data; page 16, section 2.2.2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of The Open Group to the system of Cohen because The Open Group teaches a well designed Event Management Service giving timely warning of impending problems, automatically fixing problems before service levels are degraded, integrating application-specific events mechanisms so cross-application correlation can be done at a higher level (page 1, section 1.1), thus the performance of system of Cohen would increase.

As to claim 2, Cohen teaches the request includes the ID of the type of data (a unique universal identifier UUID; col. 6, lines 48-49 and event consumers ... create a particular "event filter group" for that consumer; col. 6, lines 36-39). The Open Group teaches

- modeling at least one of the subscriptions as subscription object that includes a request for the particular type of data (ems_filtername_list_t; page 84, and event filter, ems_event_type_t type; page 50) and a node ID for the node at which the subscription object is generated (ems_netname_t * hostname; page 84); and

- wherein the subscription is received from the node indicated by the node ID and directing of the issuance of the publication data directs the publication data to be issued to the node from which the subscription object is generated (ems_pull_consumer_register (); page 84), also see (Cohen: the event is forward to all interested consumers; col. 7, lines 24-26).

As to claim 3, Cohen as modified teaches

- registering the request for the data in a registration facility of the CIBC (event consumer must first register with EMS 22, Consumer Database, Event filter Database; col. 6, lines 7-12);

- comparing the ID for each publication object against the request ID in the registration facility (EMS 22 the ... Consumer Database; col. 7, lines 14-34); and

- signaling a match of the IDs and identifying a node for which the publication data is to be sent (A test is then ... event consumer; col. 7, lines 41-46).

As to claim 4, Cohen as modified teaches

- placing the publication object in a queue prior to issuing the publication data to the one or more subscribing component (When the queue element is enqueued onto one of the consumer queues 70 ... sent it to the associated consumer queue 71; col. 10, lines 16-21); and

- issuing the publication data from the queue when the publication object reaches a top of the queue (pops elements off the elements off the consumer queue 72, and calls an event handler routine to retrieve the queue; col. 10, lines 35-39) .

As to claim 8, Cohen as modified teaches wherein the request within the subscription object further comprises an expression delimiter that indicates particular criteria to be met for a publication data to satisfy the request (an event filter group ... event type; col. 6, lines 59-64).

As to claim 9, Cohen as modified teaches the CIBC is an information kit and the publication object and subscription objects are information kit objects (Event Management Service; col. 5, lines 29-30). Also see The Open Group pages 15-16.

As to system claim 11, it is the same as the method claim of claim 1 and is rejected under

the same ground of rejection.

As to claims 12-14 and 18-19, see rejections of claims 2-4 and 8-9 above.

As to computer product claim 21, it is the same as the method claim of claim 1 and is rejected under the same ground of rejection.

As to claims 21-24 and 28-29, see rejections of claims 2-4 and 8-9 above.

5. Claims 5, 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (U.S. 5,881,315) in view of The Open Group (System Management: Event Management Service) further in view of Bracho et al. (U.S. 6,021,443).

As to claim 5, Cohen as modified teaches wherein the publication object further comprises a priority value (the priority of the event; page 16, section 2.2.2), the publication object is placed on a queue (when an event is sent to EMS, it is immediately enqueued on the input queue 74; col. 9, lines 50-51), and issuing the publication data according to a sequential order of the publication object within the queue relative to other publication objects (At step 86, the element is dequeued from the input queue 74, and the process repeats for other elements on the input queue; col. 9, lines 55-57).

Cohen as modified does not explicitly teach the placing step further comprising arranging each publication object within the queue according to the priority value of each publication

object, when two publication objects have a same priority value, arranging the two objects according to a time of entry into the queue, wherein a first incoming object is placed within the queue ahead of a second incoming object within a same priority value, while a later received publication object with a higher priority value is placed within the queue ahead of an earlier received publication object with a lower priority value, and wherein the publication data is issued from the queue in the order in which the publication object is received at the queue relative to other publication objects with the same priority value that are placed in the queue.

However, Bracho teaches arranging each publication object within the queue according to the priority value of each publication object, when two publication objects have a same priority value, arranging the two objects according to a time of entry into the queue, wherein a first incoming object is placed within the queue ahead of a second incoming object within a same priority value, while a later received publication object with a higher priority value is placed within the queue ahead of an earlier received publication object with a lower priority value, and wherein the publication data is issued from the queue in the order in which the publication object is received at the queue relative to other publication objects with the same priority value that are placed in the queue (this information can include the priority level of the published event; col. 5, lines 46-47 and events received by hub are stored in event priority order in respective event queue, hubs distribute events using a first-in, first out policy, this means that all events having a same priority level will be delivered by hub in the order that they are accepted from the publisher, all events with a higher priority level are delivered earlier than waiting events with a lower priority level; col. 10, lines 29-43).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply the teaching of Bracho to the system of Cohen and The Open Group because Bracho teaches the order of the events in a transaction processing can be maintained, which is important.

As to claims 15 and 25, see rejection of claim 5 above.

6. Claims 6-7, 16-17 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (U.S. 5,881,315) in view of The Open Group (System Management: Event Management Service) further in view of Bracho et al. (U.S. 6,021,443) and Evans et al. (U.S. 7,191,180 B2).

As to claim 6, Cohen teaches wherein the publication object includes a freshness level indicator (time-stamp information; col. 7, lines 9-10).

Cohen as modified does not explicitly teach determining prior to issuing the publication data whether the publication object is stale; and when a queued publication object is stale, triggering a publication of a more current publication object from the publish component and discarding the queued publication object. However, Bracho teaches the event includes information regarding how long the events are valid (col. 5, lines 46-48), and when the event is expired, the event is not routed further by the hub, i.e., the event is dismissed (col. 15, lines 1-3). Evans teaches when the data is expired, an update monitoring module will update the data in (col. 4, lines 29-53).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply the teaching of Bracho and Evans to the system of Cohen as modified by The Open Group because Bracho and Evans teach a method to provide to subscribe information that are up-to-date.

As to claim 7, Cohen teaches wherein the freshness level indicator is a timestamp (time-stamp information; col. 7, lines 9-10).

Cohen as modified does not teach evaluating when the timestamp indicates the publication object was published before a prior time at which the publication object is considered stale, and initiating the determining and triggering steps to retrieve the more current publication object when the timestamp indicates the publication object is stale. However, Bracho teaches evaluating when the timestamp indicates the publication object was published before a prior time at which the publication object is considered stale (col. 15, lines 1-3), and Evans teaches triggering step to update the data when the data is staled (col. 4, lines 29-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply and modify the teaching of Bracho and Evans to the system of Cohen as modified by The Open Group because Bracho and Evans teach a method to provide to subscribe information that are up-to-date, thus include the features in the publication object itself would improve the performance of the system by automatically update the events that are staled, without checking all the events data.

As to claims 16-17 and 26-27, see rejections of claims 6-7 above.

7. Claims 10, 20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (U.S. 5,881,315) in view of The Open Group (System Management: Event Management Service) further in view of Feridun et al. (U.S. 6,336,139 B1).

As to claim 10, Cohen as modified does not teaches wherein at least one of the subscribe component and the publish component is an agent that completes a second function upon receipt of the publication data. However, Feridun teaches the subscription component is an agent (each software agent can register a correlation rule for a given event which cause the software agent to run when the event is received; col. 8, lines 25-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Feridun to the system of Cohen because Feridun teaches software components that may be statically or dynamically deployed into a distributed computing environment and then executed within a given execution context to examine and correlate one or more given event streams (col. 1, lines 59-67)

As to claims 20 and 30, see rejections of claim 10 above.

Response to Arguments

8. Applicant's arguments filed 1/7/2008 have been fully considered but they are not persuasive.

As to Applicant's arguments presented in the "Rebuttal of Response to Arguments", that Applicant's arguments should be taken as cumulative with respect to all of the references, and

applied to the entire set of references, both individual and in combination with each other, examiner would also like to point out that the claims are rejected by both Cohen and the Open Group, not Cohen nor The Open Group alone. Therefore, when Applicant argued that The Open Group fails to teach "modeling publication data within a publication object …, wherein the publication data is provided in a pre-established format consumable and recognizable by any one of a plurality of the subscribe components … publish and subscribe components (page 14, lines 5-28), examiner's response was to remind Applicant that the claim is rejected under the combination of both (see rejection above).

As to Applicant's requesting to provide a reference regarding teaching of "push" and "pull" technique, examiner provides U.S. Patent number 5,862,325.

In the remarks, Applicant's argued in substance that (1) The Open Group does not teach "modeling the publication data" as recited by Applicants' independent claims, (2) Evans does not teach "including a freshness level indicator within a publication object and then triggering a publication of a more current object when a queued publication object is stale" because Evans teaches the publisher to always provide updated data for every change detected in the data, even if the previous data is not stale by a time-based analysis.

Examiner respectfully disagrees with Applicant's arguments:

- As to the point (1), In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this instant application, Cohen teaches publication object (event) including publication data

(event data), wherein the publication data is provided in a pre-established format consumable and recognizable by any one of a plurality of the subscribe components (inherent from the event data is sent to interested consumers without modify or convert the data; col. 7, lines 21-24) of the computer system which has a plurality of publish components along with the plurality of subscribe components coupled to nodes a central information bus configuration (CIBC), which enables system-wide intercommunication among the plurality of publish components and subscribe components (two or more nodes A, B and C connected through a communication link or network; col. 4, lines 10-12 Each of the processing systems may operate as a client or server, depending on whether it is requesting or supplying services; col. 4, lines 18-20). The only thing Cohen does not teach is "modeling publication data within a publication object that includes said publication data and an identifier", i.e., Cohen does not explicitly teach the publication object that includes publication data and an identifier, and this is taught by The Open Group. Thus, the combination of Cohen and The Open Group teaches the claim's limitations.

- As to the point (2), again, applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Claims 6-7 are rejected under Cohen, The Open Group, Bracho and Evans, not Evans alone. See rejection of claim 6 above. Therefore, the arguments are not persuasive.

Therefore, the rejection is maintained.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892 for related art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K. Cao whose telephone number is (571) 272-3760. The examiner can normally be reached on Monday - Friday, 7:30AM - 3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC
March 25, 2008

/Li B. Zhen/
Primary Examiner, Art Unit 2194